

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl.No.: 09/493,526 Confirmation No.: 2369  
Appellant: Shalvi et al  
Filed: January 28, 2000  
TC/AU: 2631  
Examiner: Corrielus  
  
Docket: TI-30149  
Cust.No.: 23494

SUBSTITUTE APPEAL BRIEF

Commissioner for Patents  
P.O.Box 1450  
Alexandria VA 22313-1450

Sir:

In response to the Notification of Non-Compliant Appeal Brief mailed 10/02/2006, appellant hereby submits the attached sheets which contain the Rule 41.37 items of appellant's substitute Appeal Brief. The fee for filing a brief in support of the appeal has previously been paid. The Director is hereby authorized to charge any other necessary fees to the deposit account of Texas Instruments Incorporated, account No. 20-0668.

Respectfully submitted,

/Carlton H. Hoel/

Carlton H. Hoel  
Reg. No. 29,934  
Texas Instruments Incorporated  
PO Box 655474, M/S 3999  
Dallas, Texas 75265  
972.917.4365

Rule 41.37(c)(1)(i) Real party of interest

Texas Instruments Incorporated owns the application.

Rule 41.37(c)(1)(ii) Related appeals and interferences

There are no related dispositive appeals or interferences.

Rule 41.37(c)(1)(iii) Status of claims

Pursuant to MPEP 1205.02, for each claim in the case appellant states the status as follows:

Claim 1: rejected

Claim 2: rejected

Claim 3: rejected

Claim 4: cancelled

Claim 5: allowed

Pursuant to MPEP 1205.02, appellant identifies each claim on appeal as follows

Claim 1: on appeal

Claim 2: on appeal

Claim 3: on appeal

Rule 41.37(c)(1)(iv) Status of amendments

There is no amendment after final rejection.

Rule 41.37(c)(1)(v) Summary of claimed subject matter

The independent claims on appeal consist of apparatus claim 1 and system claim 3.

The subject matter of claim 1 is an encoder for a CATV upstream data channel transmitter (application page 1, lines 12-14; page 2, lines 9-11; page 4, lines 10-12; Fig.1), comprising a convolutional encoder (application page 4, line 14; Fig.1) for receiving data values, said convolutional encoder concatenated with an outer Reed-Solomon encoder (application page 4, lines 15-16); a bit interleaver (application page 4, line 14) interconnected with said convolutional

encoder; and a symbol mapper (application page 4, lines 14-15) interconnected with said bit-interleaver.

The subject matter of claim 3 is a system which comprises an encoder for a CATV upstream data channel transmitter (application page 1, lines 12-14; page 2, lines 9-11; page 4, lines 10-12; Fig.1), comprising a convolutional encoder (application page 4, line 14; Fig.1) for receiving data values, said convolutional encoder concatenated with an outer Reed-Solomon encoder (application page 4, lines 15-16); a bit interleaver (application page 4, line 14) interconnected with said convolutional encoder; and a symbol mapper (application page 4, lines 14-15) interconnected with said bit interleaver; and a bit-interleaved decoder for a CATV upstream channel receiver (application page 1, line 13), comprising a scorer for receiving symbols (application page 5, line 24; Fig.2); a bit de-interleaver (application page 6, line 22; Fig.2) interconnected with said scorer; and a convolutional decoder (application page 6, line 24; Fig.2) interconnected with said bit de-interleaver.

Rule 41.37(c)(1)(vi) Grounds of rejection to be reviewed on appeal

The grounds of rejection to be reviewed on appeal are:

Claims 1-3 were rejected under 35 USC § 102(e) as anticipated by Vijayan et al. USP 6,151,296.

Rule 41.37(c)(1)(vii) Arguments

Claims 1-3 were rejected under 35 USC § 102(e) as anticipated by Vijayan et al. USP 6,151,296.

Claims 1-3: Independent claims 1 and 3 are each limited to coding for upstream transmission in a cable system. In contrast, Vijayan discloses a wireless (air interface) system; see Vijayan column 4, lines 5-21. Because the problems which coding are to overcome for upstream in a cable system differ from the problems of wireless systems, Vijayan does not anticipate claims 1-3. In particular, the coding in Vijayan is to counter multipath fading problems of wireless systems; whereas, a cable system has no fading problems but rather

impulse and burst noise problems; see Vijayan, column 2, lines 36-41 and the bottom two paragraphs of application page 1.

Rule 41.37(c)(1)(viii) Claims appendix

1. An encoder for a CATV upstream data channel transmitter, comprising:
  - a convolutional encoder for receiving data values, said convolutional encoder concatenated with an outer Reed-Solomon encoder;
  - a bit interleaver interconnected with said convolutional encoder; and
  - a symbol mapper interconnected with said bit-interleaver.
2. The encoder of claim 1, wherein said symbol mapper is a QAM mapper.
3. A system which comprises:

an encoder for a CATV upstream data channel transmitter, comprising:
  - a convolutional encoder for receiving data values, said convolutional encoder concatenated with an outer Reed-Solomon encoder;
  - a bit interleaver interconnected with said convolutional encoder; and
  - a symbol mapper interconnected with said bit interleaver; and

a bit-interleaved decoder for a CATV upstream channel receiver, comprising:
  - a scorer for receiving symbols;
  - a bit de-interleaver interconnected with said scorer; and
  - a convolutional decoder interconnected with said bit de-interleaver.

Rule 41.37(c)(1)(ix) Evidence appendix

none

Rule 41.37(c)(1)(x) Related proceedings appendix

none